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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,857	11/21/2003	Vanadis M. Crawford	RSW920030203US1	1362
48816 7590 08/13/2008 IBM CORPORATION - RSW (JVL) C/O VAN LEEUWEN & VAN LEEUWEN P.O. BOX 90609 AUSTIN, TX 78709-0609				
EXAMINER				
FLEISCHER, MARK A				
ART UNIT		PAPER NUMBER		
3623				
MAIL DATE		DELIVERY MODE		
08/13/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/718,857

Applicant(s)

CRAWFORD ET AL.

Examiner

MARK A. FLEISCHER

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7,21 and 22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3,5-7,21 and 22 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 04 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/888)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. This Non-Final Office Action is in reply to the response to the first Non-Final Office Action filed on 18 March 2008.
2. Claims 1, 21 and 22 have been amended.
3. Claim 2, 4, 8-20, 23 and 24 have been canceled.
4. Claims 1, 3, 5-7, 21 and 22 are currently pending and have been examined.

Response to Amendment

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.
6. The objection to the specification in the previous office action is withdrawn in light of Applicant's amendments.
7. The objections of claims 2, 9 and 15 are withdrawn in light of Applicant's cancellation of these claims.
8. The rejections of claims 2, 9 and 15 under 35 U.S.C. §112 2nd are withdrawn in light of Applicant's cancellation of these claims.

Response to Arguments

9. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. Claims 1, 3, 5-7, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim language of claims 1 and 21 states "*wherein the selected common metric spans the product lifecycle and corresponds to each of the plurality of product phases...*" The meaning of this limitation is unclear in that the term 'span' is not disclosed in the specification, nor is the meaning apparent from the limitation itself. For instance, does this mean application of the metric is appropriate over the entire time the phase is in process? In conjunction with the term "*corresponds...*" it is more confusing. Does the metric apply to each phase, each moment of the phase and does the term 'corresponds' actually mean 'associated with...'? As such this claim is vague and indefinite. For purposes of examination, Examiner interprets this to mean that the selected metric is appropriate and applicable to each of the product phases. Claims 3, 5-7, and 22 depend from claims 1 and 21 and therefore contain the same deficiencies.

Claim Rejections - 35 USC § 101

12. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

13. Claims 1, 3, 5-7, 21 and 22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent, and recent Federal Circuit decisions, the Office's guidance to examiners is that a §101 process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780,787-88 (1876). An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps. Thus,

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to qualify as a §101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state. Examiner notes that the limitations in these claims appear to constitute method steps which, when tied to another statutory category as stated above, could render them to be within the statutory framework.

14. With respect to claim 22, the phrase in the pre-amble "A computer implemented..." is an insufficient tie to another statutory class in that no correspondence is discernable between the various method steps and the particular components of the computer system.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 1, 3, 5-7, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corral (US 20030188290 A1) in view of Nandigama, *et al.* (US PgPub 20040010441 A1) and further in view of Vouk (*Software Reliability Engineering*).

Claim 1:

Corral, as shown, describes and/or discloses the following limitations:

- *A method of applying a plurality of common metrics to a product lifecycle, said method comprising:*
 - *identifying a plurality of product phases that correspond to the product lifecycle*
- (Corral, from [0075] to [0082] states: "To document the Quality Management

system, several documents are created: [...] a Process Description that describes all the processes within the corresponding Organization. Preferably, there is a description of the phases, the activities within the phases, and the tasks within the activities." (emphasis added) where 'several documents are created' corresponds to *identifying* and 'there is a description of the phases' corresponds to *a plurality of product phases...*;

Corral does not specifically describe and/or disclose the following limitation, but Nandigama, in an analogous art, does as shown.

- *selecting one of the common metrics from the plurality of common metrics* (Nandigama [0031]: "Then, common metrics chosen by the managers [*sic*] can be used rather than a laundry list of metrics developed by a shotgun approach." (emphasis added));
- *wherein the selected common metric spans the product lifecycle and corresponds to each of the plurality of product phases* Nandigama [0031]: "In addition, the database allows for multiple managers of a division to assign a relevance factor to metrics and question. [...] In one embodiment, the common metrics can be arrived at by finding the intersection of the metrics chosen by each manager." (emphasis added) where the 'multiple managers...' corresponds to managing each phase of development, hence the *metric spans ... plurality of product phases.*);
- *identifying a weighted priority of the selected common metric* (Nandigama [0040]: "In one embodiment, the questions and metrics can be filtered and sorted so that only questions or metrics having a threshold relevance are displayed. It should be appreciated that as used herein threshold relevance and weight factor can represent the same concept, which is a minimum degree of relevance in order to be further considered." (emphasis added));

- *generating a number of phase goals for each of the plurality of product phases, wherein the number is based upon the weighted priority* (Nandigama [0013]: "The program instructions for identifying questions include program instructions for assigning a question relevancy factor to each of the questions indicating a degree of relevance with each of the goals related to the questions." (emphasis added));
- *applying the generated number of phase goals to their corresponding plurality of product phases* (Nandigama [0010]: "The mapping includes defining a relevancy of the question to the goal. Then, the question is mapped to the metric related to the question. The mapping here includes defining a relevancy of the metric to the question. Next, a threshold relevancy indicating a minimum relevancy for the metric to be related to the question and the question to be related to the goal is defined. Then, it is determined if the metric is required to indicate achievement of the goal." (emphasis added) where the term 'mapping' corresponds to *applying the ...goals ...to the phases*. Note also in [0009] reference is made to "a set of goals...to determine if the goals are being achieved." where 'set of goals' corresponds to a series of *phases*); and
- *executing each of the plurality of product phases using the generated number of phase goals* (Nandigama [0006]: "The selection of the proper metrics and implementation of those metrics in the correct process will guide an organization's process improvement towards sustained profitability." (emphasis added)).

Corral and Nandigama both describe the product development process with respect to software products and how various phases of the process are monitored and evaluated using various "common metrics", that are used "to assist organizations in standardization of the mapping of goals to metrics such that the data from the metrics is indicative of the organizations progress in achieving its goals." (Nandigama [0011]). Therefore, it would

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have been obvious to one with ordinary skill in the art at the time of the invention to combine the teaching of Corral and Nandigama and utilize common metrics in the product development process as it permits a greater product reliability and more objective monitoring of the development phases. This, in turn, can lead to greater product success and, hence, profitability.

Claim 3:

Corral further describes and/or discloses the following limitations:

- *receiving one or more feedback responses from one or more feedback sources* (Corral, in at least the abstract states: "Data relative to the quality processes is collected and aggregated to generate quality reports." (emphasis added) where the 'data relative...' corresponds to *feedback responses* and 'collected' corresponds to *receiving ... feedback* and *ipso facto* must come from a *feedback source*. Moreover, Corral in at least [0016] refers to a "feedback quality management action tracking process" and, hence, involves feedback sources.);
- *analyzing one of the feedback responses* (Corral, in at least the abstract goes on to state: "Reports are analyzed and problems are detected through a defect prevention process." (emphasis added) where the 'reports' that are 'analyzed' corresponds to the limitation.); *and*
- *generating each of the common metrics in response to the analysis* (Corral finally states in the abstract: "Quality actions are initiated in a feedback quality management action tracking process." (emphasis added) where the 'tracking process' corresponds to *generating ...the common metrics* that reflect an evaluation of the process.).

Claim 5:

Neither Corral nor Nandigama specifically describe and/or disclose the following limitations and elements therein, but Vouk, in an analogous art does as shown:

- *at least one of the feedback sources is selected from the group consisting of a customer survey, a help line response, a technical support response, and a field*

report (Vouk, in at least page 1, col. 1, §2, para. 2 states: "In one case, SRE has been credited with reducing the incidence of customer-reported problems, and maintenance costs, by a factor of 10." (emphasis added) where 'customer...' corresponds to *the group ...customer survey* since customer-reported problems are typically determined using surveys which assess "customer satisfaction" as shown in Vouk in paragraph 1 of the same page. But see also Nandigama [0030] "the metric may be a customer quality index (CQI) which represent incidents or bugs in software delivered to a customer.").

Corral, Nandigama and Vouk all describe the product development process with respect to software products and how various phases of the process are monitored and evaluated using various metrics. An important data element as to quality is based on feedback data as illustrated in both Nandigama and Vouk. Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teachings of Corral, Nandigama and Vouk and utilize information obtained through a feedback process to improve the product as it permits a greater product reliability and customer satisfaction which, in turn, can lead to greater product success and profitability and that such use of feedback information was known in the art and its utilization would have been predictable.

Claim 6:

Corral further describes and/or discloses the following limitation.

- *at least one of the plurality of product phases is selected from the group consisting of a planning phase (Corral [0049]), a design phase ([0319]), a development phase ([0051]), a test phase ([0051]), and a release phase (Corral, in at least [0319] states: "Common types of problems, [...] (education problems, oversight in the design phase) and common types of suggested actions (tools, documentation)."* See also [0277] and Table 35.)

Claim 7:

Corral describes and/or discloses the limitations of claim 1 as shown above. Corral further describes and/or discloses the following limitation.

- *the method is performed using an electronic computing device* (Corral, in at least claim 1 states: "A computer implemented method for operating a quality plan in a product development organization comprising a plurality of members and having quality objectives for product development projects [...]").

Claims 21:

Corral, as shown, describes and/or discloses the following limitations:

- *receiving one or more feedback responses from one or more feedback sources, the feedback responses corresponding to the product lifecycle* (Corral, in at least the abstract states: "Data relative to the quality processes is collected and aggregated to generate quality reports." (emphasis added) where the 'data relative...' corresponds to *feedback responses corresponding to the product lifecycle* and 'collected' corresponds to *receiving ... feedback*. Note also, that Corral in at least [0232] specifically refers to *product lifecycle* to wit: "The objective of Quality Inspections (QIs) is to find Rework Items. This should result in saving time and effort by preventing defects or issues in subsequent phases of the development life cycle." (emphasis added) where 'development life cycle' corresponds to *product lifecycle*.);
- *analyzing one of the feedback responses* (Corral, in at least the abstract goes on to state: "Reports are analyzed and problems are detected through a defect prevention process." (emphasis added) where the 'reports' that are 'analyzed' corresponds to the limitation.);
- *generating each of the common metrics in response to the analysis* (Corral finally states in the abstract: "Quality actions are initiated in a feedback quality management action tracking process." (emphasis added) where the 'tracking process' corresponds to *generating ...the common metrics* that reflect an evaluation of the process.);

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- *identifying a plurality of product phases that correspond to the product lifecycle* (See the rejection of claim 1.);
- *selecting one of the common metrics from the plurality of common metrics* (See the rejection of claim 1.);
 - *wherein the selected common metric spans the product lifecycle and corresponds to each of the plurality of product phases* (See the rejection of claim 1.);
 - *identifying a weighted priority of the selected common metric* (See the rejection of claim 1.);
 - *generating a number of phase goals for each of the plurality of product phases, wherein the number is based upon the weighted priority* (See the rejection of claim 1.);
- *applying the generated number of phase goals to their corresponding plurality of product phases* (See the rejection of claim 1.);
- *executing each of the plurality of product phases using the generated number of phase goals* (See the rejection of claim 1.)

Corral and Nandigama both describe the product development process with respect to software products and how various phases of the process are monitored and evaluated using various "common metrics", that are used "to assist organizations in standardization of the mapping of goals to metrics such that the data from the metrics is indicative of the organizations progress in achieving its goals." (Nandigama [0011]). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teaching of Corral and Nandigama and utilize common metrics in the product development process as it permits a greater product reliability and more objective monitoring of the development phases. This, in turn, can lead to greater product success and, hence, profitability.

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Claim 22:

Corral, as shown, describes and/or discloses the following limitations.

- *A computer implemented method of applying a plurality of common metrics to a product lifecycle, said method comprising:*
 - *receiving one or more feedback responses from one or more feedback sources, the feedback responses corresponding to the product lifecycle* (Corral, in at least the abstract states: "Data relative to the quality processes is collected and aggregated to generate quality reports." (emphasis added) where the 'data relative...' corresponds to *feedback responses corresponding to the product lifecycle* and 'collected' corresponds to *receiving ... feedback*. Note also, that Corral in at least [0232] specifically refers to *product lifecycle* to wit: "The objective of Quality Inspections (QIs) is to find Rework Items. This should result in saving time and effort by preventing defects or issues in subsequent phases of the development life cycle." (emphasis added) where 'development life cycle' corresponds to *product lifecycle*.);
 - *analyzing one of the feedback responses, wherein the analyzing further includes assigning a weighted priority to correspond to the selected feedback response* (Corral, in at least the abstract goes on to state: "Reports are analyzed and problems are detected through a defect prevention process. Quality actions are initiated in a feedback quality management action tracking process." (emphasis added) where the reports that are analyzed are based, as noted above, on some assigned priority as also shown in Corral claim 4: "[...] the tracking process further comprises the steps of: recording the identified issue within an issue storing area of the at least one database; assigning to the issue priority, a resolution target date, and an organization member responsible; and communicating to members of the organization actions taken to resolve the issue

item." (emphasis added) where 'actions taken...' correspond to *performing the analyzing...*);

- *generating each of the common metrics in response to the analysis* (Corral finally states in the abstract: "Quality actions are initiated in a feedback quality management action tracking process." (emphasis added) where the 'tracking process' corresponds to *generating ...the common metrics* that reflect an evaluation of the process.);
- *identifying a plurality of product phases that correspond to the product lifecycle* (Corral, from [0075] to [0082] states: "To document the Quality Management system, several documents are created: [...] a Process Description that describes all the processes within the corresponding Organization. Preferably, there is a description of the phases, the activities within the phases, and the tasks within the activities." (emphasis added) where 'several documents are created' corresponds to *identifying* and 'there is a description of the phases' corresponds to *a plurality of product phases...*);
- *applying the selected common metric to each of the plurality of product phases* (Corral, in at least [0261] states: "Producing Process Metrics. As all processes regarding Quality Management are in a common platform and supported by the same tools, QMO tracks process performance and usage by applying metrics to the implemented workflows." (emphasis added) where the 'common platform' and 'same tools' indicates use of the *common metric*.); and

Corral does not specifically describe and/or disclose the following limitation, but Nandigama, in an analogous art, does as shown.

- *selecting one of the common metrics from the plurality of common metrics* (See the rejection of claim 1.);
- *executing each of the plurality of product phases using the selected common metric* (See the rejection of claim 1.).

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Corral and Nandigama both describe the product development process with respect to software products and how various phases of the process are monitored and evaluated using various "common metrics", that are used "to assist organizations in standardization of the mapping of goals to metrics such that the data from the metrics is indicative of the organizations progress in achieving its goals." (Nandigama [0011]). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention to combine the teaching of Corral and Nandigama and utilize common metrics in the product development process as it permits a greater product reliability and more objective monitoring of the development phases. This, in turn, can lead to greater product success and, hence, profitability.

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Conclusion

Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Dr. Mark A. Fleischer** whose telephone number is **571.270.3925**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **Beth Boswell** whose telephone number is **571.272.6737** may be contacted.

The prior art made of record and not relied upon that is considered pertinent to applicant's disclosure are:

- Mendonca, M, "Validation of an Approach for Improving Existing Measurement Frameworks" *IEEE Transactions on Software Engineering*, Vol. 26, No. 6, June 2000

which provides an overview and description of the state-of-the-art in measurement frameworks.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free).

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Mark A. Fleischer, Ph.D.

/Mark A Fleischer/

Examiner, Art Unit 3623

9 August 2008

/Beth V. Boswell/

Supervisory Patent Examiner, Art Unit 3623